SI & PI Simulation Case studies

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EVALUATION BOARD WITH DDR4

- 20 Layers Evaluation Board.
- Dielectric material: FR4 High Tg.
- 50Ohm for SE and 100Ohm for Differential signals.
- Datarate = 1600 Mbps
- Post Layout Simulation done for PKG+PCB.
- DDR4 Data signals simulated with different DSE and ODT condition.
- Eye mask is verified according to JEDEC DDR4 Standard.
- Ansys Siwave and Ansys Designer tool are used.
10G SERDES SIMULATION FOR APPLICATION BOARDS

- SERDES Signals are connected from Board1 Processor to Optical PCB through backplane and connectors.
- Dielectric material: Nelco 4000-7 SI for all PCBs.
- Data rate = 10Gbps
- Post Layout Simulation is performed with IBIS AMI model.
- Delivered AMI Equalization parameters to customer.
- Ansys Siwave and ADS tools are used.
93k TEST BOARD POWER SIMULATION

- 39 Layers 93k Test Board.
- Dielectric material: FR4 High Tg.
- Post Layout Voltage drop and Power impedance Simulation done for power nets in the layout.
- Layout is modified to achieve specification.
- Delivered Bulk and Decap Capacitors details.
- Cadence Sigrity Power DC is used for DC Analysis and OptimizePI is used for Capacitors optimization.
• 22 Layers board.
• Dielectric material: NELCO-13SI
• 100Ohm controlled impedance for Differential pairs.
• Data rate = 28Gbps
• Post Layout Simulation using 3D solver for more accurate result.
• Delivered optimized via structure for improved results.
• Ansys HFSS and Ansys Designer tools are used.
Global Presence

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Thank You

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